

# Report

# RIDOT TMC Incident Statistics 1/1/2012 To 12/31/2012

The Rhode Island transportation system serves 39 cities and towns, encompassing urban, suburban, and tourism areas. The Rhode Island Department of Transportation's Transportation Management Center (RIDOT TMC) has been addressing the problem of increasing congestion in Rhode Island by informing the traveler of crashes and unusual delays. In doing so, the TMC has provided measurable benefits to the transportation system, and has developed the technology and institutional awareness necessary to expand the Intelligent Transportation Systems (ITS) Program (called RhodeWays) to the benefit of Rhode Island travelers.

The RIDOT TMC maintains detailed statistics on incidents that we manage from our center. Because the data are entered by our TMC Operators, the statistics are dependent on what we can observe on the roadways with our equipment. Review and compilation of these statistics is done quarterly. By making these statistics available to you, we hope that you can learn more about the program and understand the benefit of the services we provide to the Rhode Island motoring public.

The types of incidents tabulated in this report include disabled vehicles, debris on the roadway, emergency roadwork, vehicle accidents, and vehicle rollovers. Additionally, a category exists for congestion delays that are outside of typical recurring congestion. The TMC does assist in information dissemination for planned events (such as construction) as well, but those types of events are not included in the statistics. Also, abandoned vehicles are not included since they tend to skew the statistics.

We hope you find this report interesting and that it helps in understanding the significant benefit that the RhodeWays program provides to the people who travel Rhode Island's roadways every day. Also, please remember to check the TMC website frequently for updates (http://www.tmc.state.ri.us), including construction and incident information, and highway camera images.

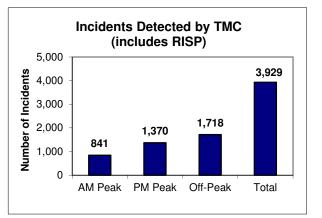
### **RIDOT TMC Incident Statistics Report**

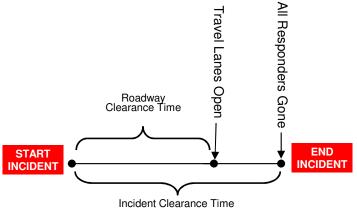
#### 1. Peak Period Incident Statistics\*

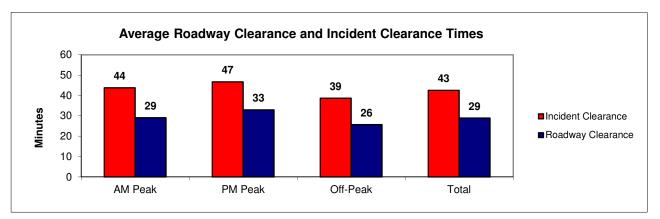
|                                    | AM Peak       | PM Peak       | Off-Peak      | Total         |
|------------------------------------|---------------|---------------|---------------|---------------|
| Number of Incidents                | 863           | 1396          | 1770          | 4029          |
| Avg. Incident Clearance Time (min) | 44            | 47            | 39            | 43            |
| Avg. Roadway Clearance Time (min)  | 29            | 33            | 26            | 29            |
| # Detected by TMC Operators        | 541           | 337           | 657           | 1535          |
| # Detected by State Police (RISP)  | 300           | 1033          | 1061          | 2394          |
| # Notified by RhodeWatchers        | 0             | 1             | 1             | 2             |
| # Utilizing VMS                    | 46            | 117           | 226           | 389           |
| # Utilizing DMS                    | 214           | 424           | 622           | 1260          |
| # Utilizing HAR                    | 172           | 165           | 351           | 688           |
| # Posted to Web                    | 813           | 1351          | 1605          | 3769          |
| Avg. Delay Cost**                  | \$185,296     | \$197,468     | \$163,469     | \$179,925     |
| Total Delay Cost                   | \$159,910,846 | \$275,664,753 | \$289,340,314 | \$724,915,913 |

<sup>\*</sup> AM Peak: 6:00AM to 10:00 AM, PM Peak: 3:00PM to 7:00PM, Monday - Friday

<sup>\*\*</sup> Delay Cost is a function of incident duration, volume on the roadway, delay per person, and cost per hour of delay for both commercial and personal vehicles. Average delay cost includes only incidents with a lane blockage and represents average cost per incident.







Note: Statistics in this report are only for incidents that the TMC reported or responded to during the year. They do not include all incidents that occurred on Rhode Island roadways.

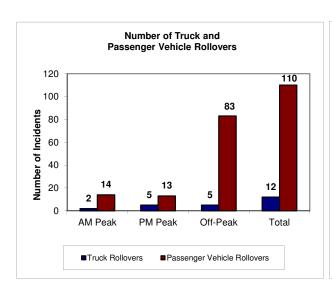
**Incident Clearance Time** is the time from the start of an incident (or when it is detected) to the time when responders leave the scene and/or the incident is declared as cleared.

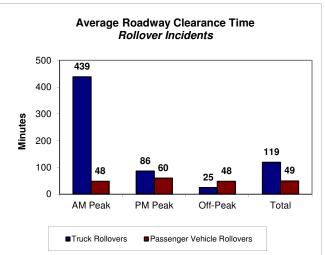
**Roadway Clearance Time** is the time from the start of an incident (or when it is detected) to the time when all travel lanes are available for traffic.

#### 2. Rollover Incident Statistics\*

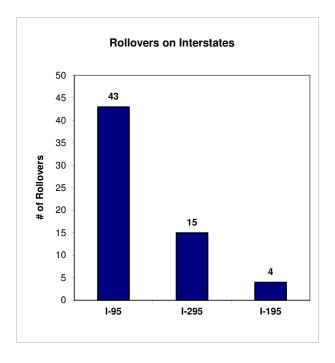
|                               | Trucks  |         |      |       | Autom | obiles |      |       |
|-------------------------------|---------|---------|------|-------|-------|--------|------|-------|
|                               |         |         | Off- |       | AM    | PM     | Off- |       |
| VEHICLES                      | AM Peak | PM Peak | Peak | Total | Peak  | Peak   | Peak | Total |
| No. of Rollovers              | 2       | 5       | 5    | 12    | 14    | 13     | 83   | 110   |
| Avg. Incident Clearance (min) | 439     | 86      | 25   | 120   | 54    | 60     | 53   | 54    |
| Avg. Roadway Clearance (min)  | 439     | 86      | 25   | 119   | 48    | 60     | 48   | 49    |

<sup>\*</sup> AM Peak: 6:00AM to 10:00 AM, PM Peak: 3:00PM to 7:00PM, Monday - Friday





|                          |        | Number    |
|--------------------------|--------|-----------|
|                          | Exit   | Of        |
| Roadway                  | Number | Rollovers |
| Interstate 95 Northbound | 22C    | 1         |
| Interstate 95 Northbound | 30     | 2         |
| Interstate 95 Northbound | 18     | 3         |
| Interstate 95 Northbound | 24     | 3         |
| Interstate 95 Northbound | 29     | 3         |
| Interstate 95 Northbound | 1      | 1         |
| Interstate 95 Northbound | 6A     | 2         |
| Interstate 95 Northbound | 5A     | 1         |
| Interstate 95 Northbound | 7      | 2         |
| Interstate 95 Northbound | 16     | 1         |
| Interstate 95 Northbound | 8B     | 1         |
| Interstate 95 Northbound | 28     | 1         |
| Interstate 95 Southbound | 6A     | 1         |
| Interstate 95 Southbound | 22B    | 1         |
| Interstate 95 Southbound | 23     | 1         |
| Interstate 95 Southbound | 13     | 3         |
| Interstate 95 Southbound | 17     | 1         |
| Interstate 95 Southbound | 6      | 1         |
| Interstate 95 Southbound | 1      | 2         |
| Interstate 95 Southbound | 29     | 3         |
| Interstate 95 Southbound | 5B     | 1         |
| Interstate 95 Southbound | 5A     | 2         |
| Interstate 95 Southbound | 20     | 1         |
| Interstate 95 Southbound | 21     | 1         |
| Interstate 95 Southbound | 8      | 1         |
| Interstate 95 Southbound | 4      | 1         |
| Interstate 95 Southbound | 25     | 2         |
| cont'd on next page      |        |           |



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|---|------------|-----|
| , , ,   |            |     |
| Interstate 195 Eastbound                                | 8          | 1   |
| Interstate 195 Eastbound                                | 5          | 1   |
| Interstate 195 Eastbound                                | 2          | 1   |
| Interstate 195 Westbound                                | 6          | 1   |
| Interstate 295 Northbound                               | 4          | 1   |
| Interstate 295 Northbound                               | 7B         | 2   |
| Interstate 295 Northbound                               | 2          | 1   |
| Interstate 295 Southbound                               | 8B         | 1   |
| Interstate 295 Southbound                               | 7A         | 1   |
| Interstate 295 Southbound                               | 3A         | 1   |
| Interstate 295 Southbound                               | 11         | 1   |
| Interstate 295 Southbound                               | 6          | 4   |
| Interstate 295 Southbound                               | 7B         | 2   |
| Interstate 295 Southbound                               | 1          | 1   |
|   |            |     |
| Airport Connector Eastbound Airport Connector Westbound | N/A<br>N/A | 1   |
|   |            | -   |
| Route 001 Northbound                                    | N/A        | 2   |
| Route 004 Northbound                                    | N/A        | 1   |
| Route 004 Northbound                                    | 8          | 1   |
| Route 006 Eastbound                                     | N/A        | 5   |
| Route 006 Westbound                                     | N/A        | 4   |
| Route 006/10 Northbound                                 | N/A        | 1   |
| Route 006/10 Southbound                                 | N/A        | 1   |
| Route 007 Northbound                                    | N/A        | 1   |
| Route 010 Northbound                                    | N/A        | 4   |
| Route 010 Southbound                                    | N/A        | 4   |
| Route 014 Westbound                                     | N/A        | 1   |
| Route 024 Southbound                                    | 3          | 1   |
| Route 037 Eastbound                                     | N/A        | 1   |
| Route 037 Eastbound                                     | 4B         | 1   |
| Route 037 Eastbound                                     | 5A         | 1   |
| Route 037 Westbound                                     | 4B         | 1   |
| Route 037 Westbound                                     | 1A         | 1   |
| Route 044 Eastbound                                     | N/A        | 1   |
| Route 078 Westbound                                     | 5          | 1   |
| Route 099 Northbound                                    | N/A        | 2   |
| Route 102 Westbound                                     | N/A        | 2   |
| Route 114 Northbound                                    | N/A        | 1   |
| Route 114 Southbound                                    | N/A        | 1   |
| Route 117 Eastbound                                     | N/A        | 1   |
| Route 126 Northbound                                    | N/A        | 1   |
| Route 138 Eastbound                                     | N/A        | 1   |
| Route 138 Westbound                                     | N/A        | 1   |
| Route 146 Northbound                                    | N/A        | 8   |
| Route 146 Southbound                                    | N/A        | 5   |
| Route 165 Southbound                                    | N/A        | 1   |
| Route 401 Eastbound                                     | N/A        | 1   |
|   |            |     |
|   |            |     |
|   | TOTAL      | 122 |
|   |            |     |

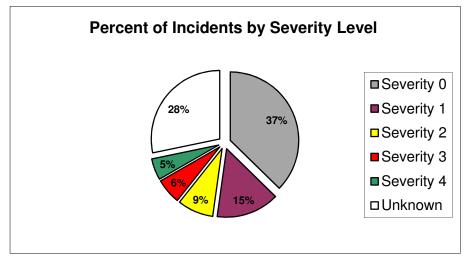
#### 3. Incidents by Severity Level

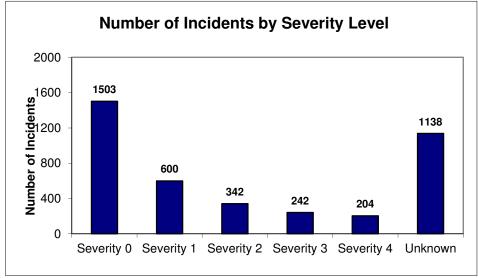
| Severity Level* | No. of Incidents |
|-----------------|------------------|
| Severity 0      | 1503             |
| Severity 1      | 600              |
| Severity 2      | 342              |
| Severity 3      | 242              |
| Severity 4      | 204              |
| Unknown         | 1138             |
| Total           | 4029             |

| Number of Incident | s with a Secondary |
|--------------------|--------------------|
| Incident:          | 31                 |

Percentage of Incidents with a Secondary Incident: 0.77%

Note: A "secondary" incident is one that is the result of an earlier incident.





#### \*Definition of Incident Severity Levels:

Severity 0: No injuries and no travel lanes blocked

Severity 1: 1/4+ travel lanes blocked with no injuries OR median/shoulder closed with injuries

Severity 2: 1/3 or 2/4+ lanes blocked OR Fire w/ 0 lanes closed OR hazardous materials (HAZMAT) w/ 0 lanes closed

Severity 3: 1/2 or 2/3 or 3/4+ lanes blocked OR Fire w/ 1/3 or 2/4 lanes closed OR

Hazmat w/ 2/4 lanes closed

Severity 4: All travel lanes blocked OR fatality OR Hazmat w/ clean-up OR Fire w/ 1/2, 2/3, 3/4 lanes closed OR Structural damage w/ 1/3, 2/3+ lanes closed

Unknown: Incidents without a recorded severity level

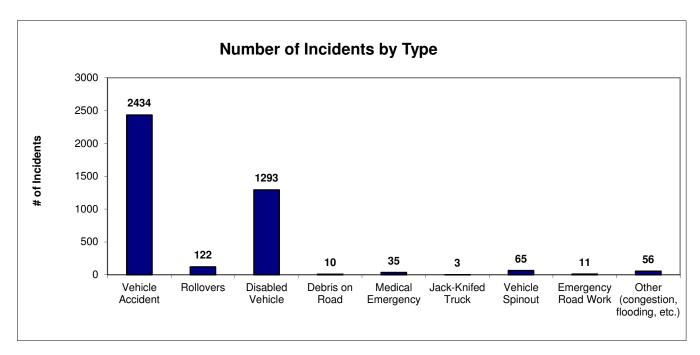
Note: For travel lanes blocked terminology, "1/4" indicates 1 out of 4 lanes blocked

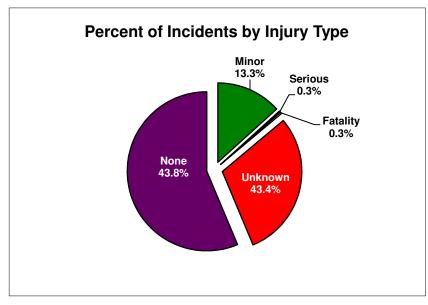
# 4. Incidents by Type

| Incident Type                | No. of Incidents |
|------------------------------|------------------|
| Vehicle Accident             | 2434             |
| Rollovers                    | 122              |
| Disabled Vehicle             | 1293             |
| Debris on Road               | 10               |
| Medical Emergency            | 35               |
| Jack-Knifed Truck            | 3                |
| Vehicle Spinout              | 65               |
| Emergency Road Work          | 11               |
| Other (congestion, flooding, | 56               |
| etc.)                        |                  |
| Total Number of Incidents    | 4029             |

# 5. Incidents by Injury Type

| Injury Type | No. of Incidents |
|-------------|------------------|
| Minor       | 535              |
| Serious     | 12               |
| Fatality    | 13               |
| Unknown     | 1200             |
| None        | 2269             |
| Total       | 4029             |





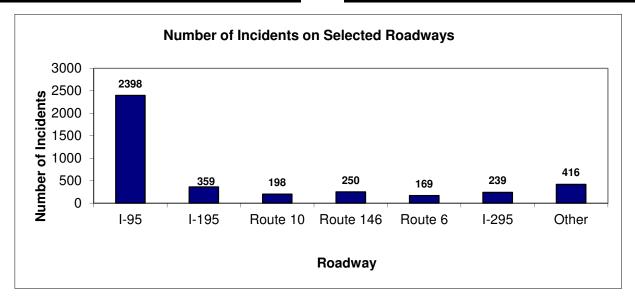
# 6. Incidents by Pavement and Weather Conditions

| Pavement Condition           | No. of Incidents |
|------------------------------|------------------|
| Dry                          | 3136             |
| Wet                          | 778              |
| lcy                          | 22               |
| Snow-Covered                 | 91               |
| Flooded                      | 2                |
| Other                        | 0                |
| Total                        | 4029             |
| Precipitation                |                  |
| None                         | 3317             |
| Light-moderate rain falling  | 548              |
| Heavy rain falling           | 61               |
| Light-moderate sleet falling | 1                |
| Heavy sleet falling          | 2                |
| Light-moderate snow falling  | 60               |
| Heavy snow falling           | 40               |
| Total                        | 4029             |
| Wind                         |                  |
| Calm to Moderate             | 3935             |
| Moderate to Strong           | 81               |
| Gusts over 50 mph            | 3                |
| Gusts over 75 mph            | 0                |
| Hurricane                    | 0                |
| Other                        | 0                |
| N/A                          | 10               |
| Total                        | 4029             |
| Visibility                   |                  |
| Clear                        | 3374             |
| Light fog                    | 38               |
| Dense fog                    | 14               |
| Reduced- rain                | 472              |
| Reduced-snow                 | 71               |
| Poor-heavy rain/sleet        | 10               |
| Poor-heavy snow              | 29               |
| Reduced-smoke                | 1                |
| Other                        | 0                |
| N/A                          | 20               |
| Total                        | 4029             |

# 7. Incidents Detected by Primary Notifier on Selected Roadways

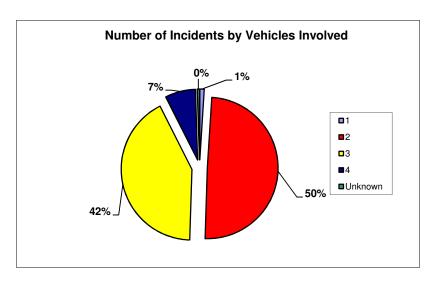
| Roadway | Primary Notifier      | No. of Incidents |
|---------|-----------------------|------------------|
| I-195   | TMC Operator          | 151              |
|         | State Police Scanner  | 191              |
|         | Local Fire Department | 0                |
|         | Rhode Watcher         | 0                |
|         | Media/MetroNetworks   | 0                |
|         | Traffic.com           | 0                |
|         | Transcom              | 0                |
|         | Other                 | 17               |
|         | Total                 | 359              |
| I-95    | TMC Operator          | 1014             |
|         | State Police Scanner  | 1234             |
|         | Local Fire Department | 0                |
|         | Rhode Watcher         | 0                |
|         | Media/MetroNetworks   | 0                |
|         | Traffic.com           | 0                |
|         | Transcom              | 1                |
|         | Other                 | 149              |
|         | Total                 | 2398             |
| I-295   | TMC Operator          | 73               |
|         | State Police Scanner  | 136              |
|         | Local Fire Department | 0                |
|         | Rhode Watcher         | 2                |
|         | Media/MetroNetworks   | 0                |
|         | Traffic.com           | 0                |
|         | Transcom              | 0                |
|         | Other                 | 28               |
|         | Total                 | 239              |

| Roadway   | Primary Notifier      | No. of Incidents |
|-----------|-----------------------|------------------|
| Route 10  | TMC Operator          | 61               |
|           | State Police Scanner  | 121              |
|           | Local Fire Department | 0                |
|           | Rhode Watcher         | 0                |
|           | Media/MetroNetworks   | 0                |
|           | Traffic.com           | 0                |
|           | Transcom              | 0                |
|           | Other                 | 16               |
|           | Total                 | 198              |
| Route 146 | TMC Operator          | 76               |
|           | State Police Scanner  | 150              |
|           | Local Fire Department | 0                |
|           | Rhode Watcher         | 0                |
|           | Media/MetroNetworks   | 0                |
|           | Traffic.com           | 0                |
|           | Transcom              | 0                |
|           | Other                 | 24               |
|           | Total                 | 250              |
| Route 6   | TMC Operator          | 73               |
|           | State Police Scanner  | 83               |
|           | Local Fire Department | 1                |
|           | Rhode Watcher         | 0                |
|           | Media/MetroNetworks   | 0                |
|           | Traffic.com           | 0                |
|           | Transcom              | 0                |
|           | Other                 | 12               |
|           | Total                 | 169              |



# 8. Incidents by Number of Vehicles Involved

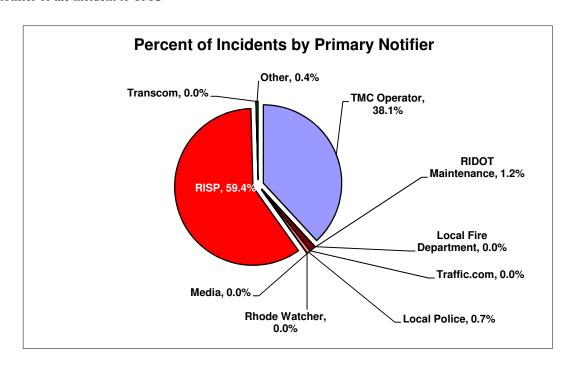
| No. of Vehicles<br>Involved | No. of<br>Incidents |
|-----------------------------|---------------------|
| 1                           | 40                  |
| 2                           | 1947                |
| 3                           | 1654                |
| 4                           | 274                 |
| 5                           | 65                  |
| 6                           | 21                  |
| 7                           | 5                   |
| 8                           | 2                   |
| 9                           | 1                   |
| 10+                         | 1                   |
| Unknown                     | 19                  |
| Total Incidents             | 4029                |

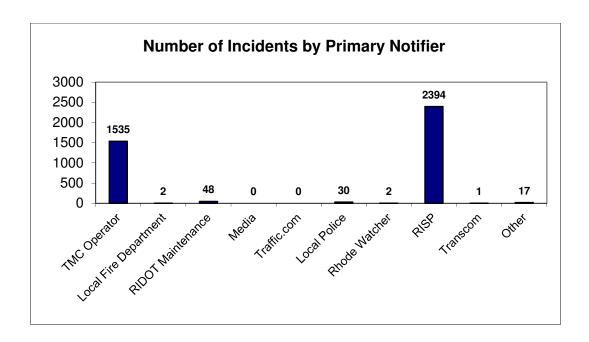


# 9. Incident Notification

| Primary Notifier*     | No. of<br>Incidents |
|-----------------------|---------------------|
| TMC Operator          | 1535                |
| Local Fire Department | 2                   |
| RIDOT Maintenance     | 48                  |
| Media                 | 0                   |
| Traffic.com           | 0                   |
| Local Police          | 30                  |
| Rhode Watcher         | 2                   |
| RISP                  | 2394                |
| Transcom              | 1                   |
| Other                 | 17                  |
| Total                 | 4029                |

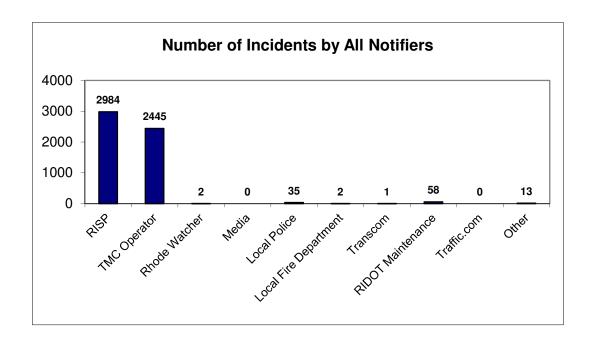
<sup>\*</sup>First notifier of the incident to TMC





| All Notifiers         | No. of Incidents |
|-----------------------|------------------|
| RISP                  | 2984             |
| TMC Operator          | 2445             |
| Rhode Watcher         | 2                |
| Media                 | 0                |
| Local Police          | 35               |
| Local Fire Department | 2                |
| Transcom              | 1                |
| RIDOT Maintenance     | 58               |
| Traffic.com           | 0                |
| Other                 | 13               |

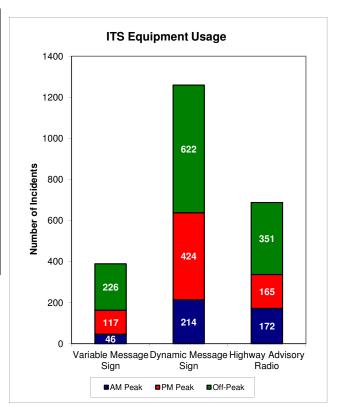
Note: Primary notifier indicates the first notifier of the incident to the TMC.
Additional notifiers are also logged, and are represented in the statistics for "all notifiers".



#### 10. Incident Response

|                            | No. of    | % of Total |
|----------------------------|-----------|------------|
| On-Scene Responding Agency | Incidents | Incidents  |
| State Police               | 3470      | 86.13%     |
| Tow                        | 1487      | 36.91%     |
| Local Fire Department      | 937       | 23.26%     |
| EMS                        | 899       | 22.31%     |
| Local Police               | 220       | 5.46%      |
| Service Patrol             | 32        | 0.79%      |
| Mass Highway               | 1         | 0.02%      |
| DOT                        | 76        | 1.89%      |
| Hazmat                     | 0         | 0.00%      |
| DEM                        | 6         | 0.15%      |
| Connecticut DOT            | 0         | 0.00%      |
| Construction               | 11        | 0.27%      |
| Coast Guard                | 0         | 0.00%      |
| Department of Health       | 0         | 0.00%      |
| K-9                        | 1         | 0.02%      |
| RIPTA                      | 1         | 0.02%      |

|                              | # of<br>Incidents |
|------------------------------|-------------------|
| # Utilizing (HAR,VMS or DMS) | 1520              |
| # Utilizing VMS              | 389               |
| # Utilizing DMS              | 1260              |
| # Utilizing HAR              | 688               |
| # Posted to Web              | 3769              |



Note: Numbers and percentages in upper table indicate how many of the incidents during the month were responded to by the agency indicated. Note that multiple agencies may respond to an incident, so percentages do not add up to 100%.

